

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Attachment No. 2

INITIAL STATEMENT OF REASONS**CALIFORNIA CODE OF REGULATIONS**

**TITLE 8: Chapter 4, Subchapter 4, Article 32, Section 1740(b)
of the Construction Safety Orders (CSO)**

Storage and Use of Fuel Gas Cylinders**SUMMARY**

This proposal would revise an existing requirement regarding the storage and use of gas cylinders associated with various operations including but not limited to welding and cutting activities. The current standard, California Code of Regulations, Title 8, Section 1740(b), says in part that "Gas cylinders shall be stored and used with the valve end up." The proposal would make this provision clear that insofar as use and storage is concerned, the valve-end-up requirement applies to acetylene and fuel gases. In this way, the proposal prevents the standard from being ambiguous in its meaning.

This rulemaking action is being initiated as a result of Occupational Safety and Health Standards Board (Board) Petition File No. 472, by Mr. Michael Sterrett (Petitioner), Chair, Associated General Contractors of California (AGC) Safety and Health Council. The Petitioner requested the Board amend Title 8, Section 1740(b) to clarify that fuel gas cylinders, rather than all gas cylinders, must be stored and used with valve end up, thereby excluding oxygen cylinders from this requirement. The petition was granted by the Board on October 20, 2005.

The proposed change to Section 1740(b), although exclusive to acetylene and fuel gases, is consistent with existing Title 8, General Industry Safety Orders, Section 4845, 29 CFR 1926.350(a), Gas Welding and Cutting, 29 CFR 1910.253(a)(3)(iii) and (a)(5)(iii)(A), Oxygen-Fuel Gas Welding and Cutting and the American National Standards Institute (ANSI) Z49.1-2005 standard, Safety in Welding, Cutting and Allied Processes. For example, acetylene is a compressed gas that is used as a welding and cutting fuel and is stored in a liquid state. When the valve is opened and pressure is released, a portion of the liquefied acetylene turns to gas. This gas is then used by the device that the cylinder is connected to.

Acetylene, when placed in the horizontal position, could become dislodged from acetone and binders and form highly unstable explosive pockets that are subject to polymerization, thus permitting acetone to enter the regulator resulting in a fire and/or explosion. Therefore, using and storing the tank in any position other than upright can be extremely dangerous. However,

non fuel gases, such as oxygen which are stored in and expelled from the cylinder in a gaseous state, cannot enter the cylinder regulator as anything but a gas incapable of explosion regardless of the physical orientation of the cylinder.

Consultation with safety representatives from AGC, and Airgas Corporation, a leading supplier of industrial gases, indicate support of the Petitioner's request and the proposed amendment. The proposal deviates from the Petitioner's proposal to the extent that it clarifies that the amendment applies to but not limited to welding and cutting fuel gas and acetylene. Article 32, pertains to gases associated with welding (joining metal) and cutting (cutting through metal) operations. By including the word fuel before "gas cylinders" in subsection (b), it will avoid requiring non-fuel gas cylinders that do not present the same potential hazards from having to be unnecessarily regulated.

The proposed amendment is as follows:

Section 1740. Storage and Use of Cylinders

This section contains standards addressing the safe use and storage of compressed gas cylinders including fuel gas cylinders, including but not limited to, protection against heat, storage, portable service use, handling and storage near energized conductors.

Subsection (b) requires all gas cylinders to be stored and used with the valve end up and that cylinders containing oxygen, acetylene or fuel gases shall not be taken into confined spaces. A revision is proposed to add the words, "Acetylene and fuel" in front of "gas cylinders." The proposed revision is necessary to clarify to the employer that acetylene and fuel gas cylinders are to be used and stored valve end up (in the vertical/upright position), to ensure that they will safely dispense the gas they contain, and not backflow into the regulator, which could result in fire and/or explosion.

DOCUMENTS RELIED UPON

1. OSHSB Petition File No. 472, Petition by Mr. Michael Sterrett, Chair, AGC Safety and Health Council, Decision dated October 20, 2005.
2. Petition letter from Mr. Michael Sterrett, Chair, AGC Safety and Health Council, to the Board dated June 10, 2005.
3. American National Standard Institute (ANSI), Z49.1-2005, Safety In Welding, Cutting, and Allied Processes.
4. U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.253, pages 678, 679, Ch XVII (7-1-05 Edition).
5. U.S. Department of Labor, Occupational Safety and Health Administration, www.osha.gov, Regulations (Standards -20-CFR), 29 CFR 1926.350(b)(3).

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC
IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action. The proposal is a technical clarification to ensure that, consistent with Federal OSHA standards, National Consensus Standards and the General Industry Safety Orders, the employer will understand that only fuel gas cylinders must be used and stored in an upright position.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these proposed amendments do not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.) The proposed standard does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standard.

Local agencies will be required to comply with the proposal and thereby incur some costs. These costs may be required to be reimbursed by the state pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendment may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendment to this standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.